

*LTC News for Immediate Release*

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## **High Power LED Driver with 3000:1 PWM Dimming Range Delivers True Color**

MILPITAS, CA – January 3, 2006 – Linear Technology Corporation introduces the LTC3783, a current-mode multi-topology converter with constant-current PWM, dimming for driving high-power LED strings and clusters. Proprietary techniques provide extremely fast, true PWM load switching with no transient undervoltage or overvoltage issues. Ratios of 3000:1 can be achieved digitally as True Color PWM™ dimming guarantees color integrity of white and RGB LEDs. The LTC3783 allows an additional 100:1 dimming ratio using analog control. This versatile controller can be used as a boost, buck, buck-boost, SEPIC, or flyback converter, and as a constant-current/constant-voltage regulator. No R<sub>SENSE</sub>™ operation uses the on-resistance of a MOSFET to eliminate the current-sense resistor, increasing efficiency. Applications for the LTC3783 include high-voltage LED arrays and backlighting, as well as voltage regulators in telecom, automotive and industrial control systems.

The LTC3783 operates from input supplies ranging from 3V to 36V and provides overvoltage protection while regulating output current. Integrated drivers for power and load MOSFET switches and an adjustable feedback voltage (0V to 1.23V) make this part especially convenient for higher-power LED lighting applications. One resistor sets operating frequency from 20kHz to 1MHz. Moreover, to reduce switching noise interference, the LTC3783 is synchronizable to an external clock. Programmable soft-start limits inrush current during startup, preventing input current spikes.

The LTC3783 is rated for operation from -40°C to 85°C with a maximum junction temperature of 125°C. It is offered in 16-lead 5mm x 4mm DFN and TSSOP packages. 1,000-piece pricing starts at \$2.85 each.

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## Summary of Features: LTC3783

- True Color PWM Delivers Constant Color with 3000:1 Dimming Ratio
- Integrated MOSFET Driver for PWM Dimming Control
- 100:1 Dimming from Analog Input
- Constant Current or Constant Voltage Regulation
- 1% 1.23V Internal Voltage Reference
- Adjustable Output Voltage Protection & Soft-start

## About Linear Technology Corporation

Linear Technology Corporation, a manufacturer of high performance linear integrated circuits, was founded in 1981, became a public company in 1986 and joined the S&P 500 index of major public companies in 2000. Linear Technology products include high performance amplifiers, comparators, voltage references, monolithic filters, linear regulators, DC-DC converters, battery chargers, data converters, communications interface circuits, RF signal conditioning circuits, and many other analog functions. Applications for Linear Technology's high performance circuits include telecommunications, cellular telephones, networking products such as optical switches, notebook and desktop computers, computer peripherals, video/multimedia, industrial instrumentation, security monitoring devices, high-end consumer products such as digital cameras and MP3 players, complex medical devices, automotive electronics, factory automation, process control, and military and space systems. For more information, visit [www.linear.com](http://www.linear.com)

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